EXHIBIT 19

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

ANDREW CORZO, SIA HENRY, ALEXANDER LEO-GUERRA, MICHAEL MAERLANDER, BRANDON PIYEVSKY, BENJAMIN SHUMATE, BRITTANY TATIANA WEAVER, and CAMERONE WILLIAMS, individually and on behalf of all others similarly situated,	Case No. 22-cv-00125
Plaintiffs,	
v.	
BROWN UNIVERSITY, CALIFORNIA INSTITUTE OF TECHNOLOGY, UNIVERSITY OF CHICAGO, THE TRUSTEES OF COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK, CORNELL UNIVERSITY, TRUSTEES OF DARTMOUTH COLLEGE, DUKE UNIVERSITY, EMORY UNIVERSITY, GEORGETOWN UNIVERSITY, THE JOHN HOPKINS UNIVERSITY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, NORTHWESTERN UNIVERSITY, UNIVERSITY OF NOTRE DAME DU LAC, THE TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA, WILLIAM MARSH RICE UNIVERSITY, VANDERBILT UNIVERSITY, and YALE UNIVERSITY,	
Defendants.	

SURREBUTTAL EXPERT REPORT OF NICHOLAS HILL, PHD

1 November 2024

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(49) Row 3 depicts the effect of controlling flexibly for the COVID-19 pandemic rather than assuming that it only had an impact in 2020. It shows that none of Dr. Singer's models yields an overcharge estimate that is statistically significant at standard significance levels.

(50) Finally, row 4 depicts the effect of dropping unreliable data from the 2023–2024 and 2024–2025 academic years. It shows that, after making this adjustment, only two of Dr. Singer's models yield an overcharge estimate that is statistically significant at the 5 percent significance level. Further, the overcharge estimate in Dr. Singer's model 6 falls by 25 percent, which implies that his estimated damages fall by 25 percent.

(51) Collectively, the sensitivity tests in rows 2 through 4 show that Dr. Singer's overcharge estimates change materially in response to small and reasonable changes and are hence not reliable.

5.2. Dr. Singer's new estimated overcharges change materially in response to my sensitivity tests when using my amended data

(52) Figure 8 summarizes the results of applying my sensitivity tests to Dr. Singer's baseline model when using my amended data and correcting his standard errors.[56] A blue cell indicates that that model produces an estimate of undercharge (i.e., the challenged conduct led to lower effective institutional prices) that is statistically significant at the 5 percent significance level. A light blue cell indicates that that model produces an undercharge estimate that is statistically significant at only the 10 percent significance level. A white cell indicates that the overcharge estimate for that model is not statistically significant at standard significance levels. Gray cells indicate results that are identical to another cell due to the inclusion of fixed effects (e.g., models 2 and 3 and models 5 and 6 are identical when using year fixed effects). There are no statistically significant overcharge estimates in the table.

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[56] Hill Rebuttal Report, § 8.3.

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Figure 8: Summary of the conduct estimates after correcting Dr. Singer's data, based on Dr. Singer's overcharge models with corrected standard errors

| Dependent variable: Effective institutional price	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Hill amended data	-428	-197	317	36	348	526
Hill amended data + Year FE	-905*		-432	-581		-428
Hill amended data + COVID FE	-757	-650	-866**	-638	-369	-433
Hill amended data + drop '23–24, '24–25	-848	-713	-297	-455	-101	97

Source: Hill amended data.
Notes:
[1] Dr. Singer's models from Table 6 of his rebuttal report with corrected data and conceptual modifications.
[2] Effective institutional price is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects, as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] Blue cells indicate estimates that are statistically significant and negative at the 5 percent significance level using two-way clustering. Light blue cells indicate estimates that are statistically significant and negative at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

(53)   The results in row 1 of the figure depict the effect of replacing Dr. Singer's amended data with my amended data and correcting Dr. Singer's standard errors. After making this adjustment, Dr. Singer's methodology produces no statistically significant evidence of overcharges. Row 2 depicts the effect of controlling flexibly for the year rather than imposing a linear relationship between year and effective institutional price. It shows that none of Dr. Singer's models yields statistically significant evidence of overcharges.

(54)   Row 3 depicts the effect of controlling flexibly for the COVID-19 pandemic rather than assuming that it only had an impact in 2020. It shows that none of Dr. Singer's models yields statistically significant evidence of overcharges after making this change. One model yields statistically significant evidence of undercharges.

(55)   Finally, row 4 depicts the effect of dropping unreliable data from the 2023–2024 and 2024–2025 academic years. It shows that none of Dr. Singer's models yields statistically significant evidence of overcharges after making this change.

(56)   Collectively, the results depicted in Figure 8 show that when using my amended data, Dr. Singer's model finds no statistically significant evidence that the challenged conduct harmed students.

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Figure 10: Dr. Singer's estimated expected family contribution conduct effects after correcting his standard errors (Updated Figure 31 from Hill Rebuttal Report)
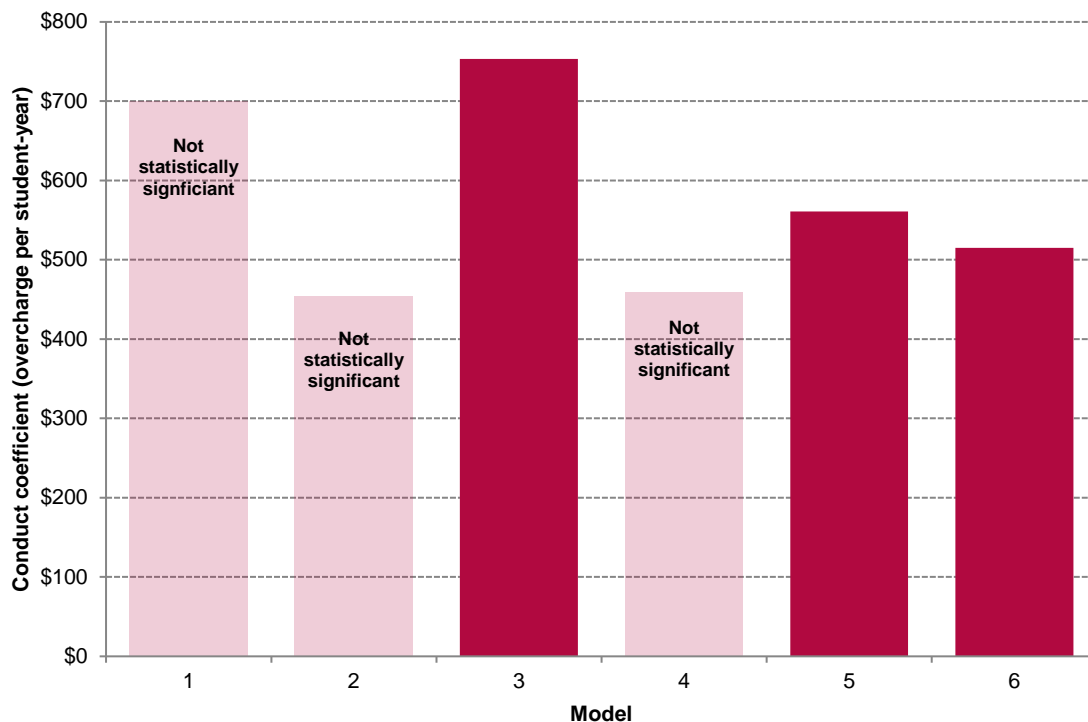
Source: Singer amended data.
Notes: The bars show Dr. Singer's conduct effects by statistical significance after correcting both cross-sectional correlation and serial correlation using two-way cluster-robust standard errors by clustering on student and school by year. Light color bars indicate estimates that are not statistically significant at the 5 percent significance level.

6.2. Dr. Singer's new expected family contribution overcharge estimates change materially in response to his sensitivity tests

(61)   In his initial report, Dr. Singer proposed a number of sensitivity tests for his effective institutional price overcharge methodology. Some of these sensitivity tests are not applicable to his new expected family contribution results.[66] One of Dr. Singer's sensitivity tests that is applicable is using a log-linear specification instead of a linear specification.[67] Dr. Singer does not present the results of his

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[66]   A student's expected family contribution is not affected by the breakdown of that student's aid by merit or need. This eliminates three of Dr. Singer's five sensitivity tests. A fourth is redundant because the institutional grant aid sensitivity check is the same whether one is examining effective institutional price or expected family contribution.

[67]   *See* Singer Initial Report, Appendix 4 and Appendix 5; *see also* Singer Initial Report, ¶ 250. Dr. Singer states that "[l]og-linear regressions are commonly used in the economics literature to estimate economic relationships in elasticity terms—that is, to show the percentage change in the dependent variable associated with a one percentage change in the independent variable."

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log-linear sensitivity test when applied to his new expected family contribution overcharge estimates.[68]

(62)   Row 1 of Figure 11 summarizes the conduct estimates of Dr. Singer's expected family contribution overcharge model after correcting his standard errors. A red cell indicates that the overcharge estimate for that model is statistically significant at the 5 percent significance level. A light red cell indicates that the overcharge estimate for that model is statistically significant at only the 10 percent significance level. A white cell indicates that the overcharge estimate for that model is not statistically significant at standard significance levels.

(63)   Row 2 of Figure 11 depicts the effect of moving Dr. Singer's new expected family contribution overcharge model from a linear specification to a log-linear specification and correcting his standard errors.[69] A blue cell indicates that that model produces an undercharge estimate (i.e., the challenged conduct led to lower expected family contributions) that is statistically significant at the 5 percent significance level. A light blue cell indicates that that model produces an estimate of undercharges that is statistically significant at only the 10 percent significance level. A white cell indicates that the overcharge estimate for that model is not statistically significant at standard significance levels.

Figure 11: Summary of the conduct estimates after running log-linear versions of Dr. Singer's expected family contribution overcharge models, based on Dr. Singer's data with corrected standard errors

Modeling approach	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Singer amended data, baseline model	700*	454	753**	459*	561**	515**
Singer amended data, log-linear model	-0.10**	-0.08*	-0.05	-0.02	-0.02	-0.02

Source: Singer amended data.
Notes:
[1] Dr. Singer's models from Table 1 of his rebuttal report.
[2] Expected family contribution is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6.
[3] Red cells indicate estimates that are statistically significant and positive at the 5 percent significance level using two-way clustering. The blue cell indicates an estimate that is statistically significant and negative at the 5 percent significance level using two-way clustering. Light red and light blue cells indicate estimates that are statistically significant at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

(64)   Row 2 shows that switching Dr. Singer's expected family contribution model to a log-linear form materially changes his findings. After this adjustment, the results show no statistically significant evidence that the challenged conduct led to higher expected family contributions. These results are

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[68]   Dr. Singer asserts that "[b]ecause EFC formulae generally assess student factors in levels, I only run EFC regressions in levels." Singer Rebuttal Report, n. 126. However, in his initial report, he asserts that his log-linear specification is an important sensitivity test of his effective institutional price regressions. *See* Singer Initial Report, ¶ 250.

[69]   I follow Dr. Singer's methodology of adding $1 to expected family contribution before converting the variable to a logarithm. *See* Singer Rebuttal Report, ¶ 136.

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(65) Figure 12 depicts the effects of estimating Dr. Singer's expected family contribution model using my amended data and correcting his standard errors. Row 1 illustrates the effect of switching from Dr. Singer's amended data to my amended data. It shows that correcting his data results in Dr. Singer's expected family contribution model finding no statistically significant evidence of a change in expected family contribution due to the challenged conduct.

(66) Row 2 of Figure 12 depicts the effect of using my amended data and moving Dr. Singer's new expected family contribution overcharge model from a linear specification to a log-linear specification. The model finds no statistically significant evidence that the challenged conduct led to higher expected family contributions. Collectively, the results in Figure 12 are consistent with Dr. Singer's expected family contribution conclusions being unreliable.

Figure 12: Summary of the conduct estimates after correcting Dr. Singer's data, based on log-linear versions of Dr. Singer's EFC overcharge models with corrected standard errors

Modeling approach	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Hill amended data, baseline model	-147	-161	429	139	273	422
Hill amended data, log-linear model	-0.13***	-0.11**	-0.08*	-0.00	-0.01	-0.01

Source: Hill amended data.
Notes:
[1] Dr. Singer's models from Table 1 of his rebuttal report with corrected data.
[2] Expected family contribution is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6.
[3] Blue cells indicate estimates that are statistically significant and negative at the 5 percent significance level using two-way clustering. The light blue cell indicates an estimate that is statistically significant and negative at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

6.3. Dr. Singer's new expected family contribution overcharge estimates change materially in response to sensitivity tests from my rebuttal report

(67) The methodology that Dr. Singer uses for his new expected family contribution regression analysis is the same methodology he uses for his overcharge estimates based on effective institutional price in his initial and rebuttal reports.[70] Hence, his new expected family contribution overcharge analysis is

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[70] Singer Rebuttal Report, ¶ 44 ("I apply the same model that I used to measure the artificial inflation in Effective Institutional Prices owing to the Challenged Conduct (shown in Table 11 of my Initial Report), but I replace the dependent variable Effective Institutional Price with EFC.").

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conceptually flawed for the reasons I discussed in my rebuttal report.[71] In this section, I set aside these conceptual flaws and apply to his new expected family contribution overcharge estimates the same quantitative sensitivity tests that I applied to his initial effective institutional price overcharge estimates in Section 8.3 of my rebuttal report and to his new effective institutional price overcharge estimates in Section 5 above.[72]

(68)   Specifically, I estimate his model after making three separate small and reasonable modeling changes. First, I replace the linear time trend in his baseline model with a flexible time trend.[73] Second, I modify his baseline model to estimate the effect of the COVID-19 pandemic on financial aid more flexibly.[74] Third, I estimate his baseline model after dropping flawed data from after the end of the 568 Group in 2022.[75] I discussed the motivation for each of these changes in detail in Section 8.3 in my rebuttal report.

(69)   Figure 13 summarizes the results of applying my three sensitivity tests to Dr. Singer's baseline model when using Dr. Singer's amended data and correcting his standard errors. A red cell indicates that the overcharge estimate for that model is statistically significant at the 5 percent significance level. A light red cell indicates that the overcharge estimate for that model is statistically significant at only the 10 percent significance level. A white cell indicates that the overcharge estimate for that model is not statistically significant at standard significance levels. Gray cells indicate results that are identical to another cell due to the inclusion of fixed effects (e.g., models 2 and 3 and models 5 and 6 are identical when using year fixed effects).

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[71]   Hill Rebuttal Report, §§ 8.4, 8.5.

[72]   Hill Rebuttal Report, § 8.3.

[73]   *See* Hill Rebuttal Report, § 8.3.1; *see also* Hill Rebuttal Report, ¶ 216 ("My more flexible approach is a more general version of Dr. Singer's linear time trend. If the time trend is truly linear, my more flexible specification will identify that. If it is not, my more flexible specifications will be better positioned to control for trends over time accurately.").

[74]   *See* Hill Rebuttal Report, § 8.3.2; *see also* Hill Rebuttal Report ¶ 220 ("[T]he standard economic method for flexibly controlling for the impact of discrete events, such as the COVID-19 pandemic and subsequent upheaval in the higher education industry and high inflation rates, is to include dummy variables for each affected year. Hence, I make Dr. Singer's approach more flexible by adding to Dr. Singer's model a separate control for each year starting in the 2020–2021 academic year. This approach allows the effect of COVID-19 (during the actual pandemic and the subsequent period of high inflation) to be present and distinct for each academic year from 2020–2021 onwards.").

[75]   *See* Hill Rebuttal Report, ¶ 8.3.3; *see also* Hill Rebuttal Report, ¶ 227 ("Dr. Singer's purported findings of adverse effects depends heavily upon including data from academic years 2023–2024 and 2024–2025. These data are flawed and should not be included when estimating Dr. Singer's overcharge regressions (or other empirical projects).").

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Figure 13: Summary of the conduct estimates after modifying Dr. Singer's expected family contribution overcharge models in his Table 1, based on Dr. Singer's amended data with corrected standard errors

Dependent variable: Expected family contribution	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Singer amended data	700*	454	753**	459*	561**	515**
Singer amended data + Year FE	1,557***		1,801***	1,213***		1,157***
Singer amended data + COVID FE	1,412***	882**	365	364	489*	324
Singer amended data + drop '23–24 '24–25	1,088**	680*	617*	495*	633**	542**

Source: Singer amended data.
Notes:
[1] Dr. Singer's models from Table 1 of his rebuttal report with conceptual modifications.
[2] Expected family contribution is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects, as macro control variables are school invariant and explain no additional variation (gray cells).
[3] Red cells indicate estimates that are statistically significant and positive at the 5 percent significance level using two-way clustering. Light red cells indicate estimates that are statistically significant and positive at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

(70)   Figure 13 shows that Dr. Singer's results are sensitive to small and reasonable changes to his model. First, as previously noted, only half of Dr. Singer's baseline models yield expected family contribution increases that are significant at the 5 percent significance level. Second, none of Dr. Singer's models, including his preferred model 6, yields an increase in expected family contributions that is statistically significant at the 5 percent significance level across all four sensitivity tests.

(71)   Finally, the size of the expected family contribution increases in the figure are not consistent with Dr. Singer's estimated overcharges. In Table 4 of his rebuttal report, Dr. Singer asserts that a one-dollar increase in expected family contribution corresponds to a 24 cent increase in effective institutional price.[76] Applying that assertion to Dr. Singer's baseline estimate of the increase in expected family contribution—i.e., $515, from model 6 in his baseline models—would correspond to an increase in effective institutional price of only $124. This is far below the overcharge estimate that Dr. Singer uses to estimate damages, which presumes an increase in effective institutional price of $1,202 (see Figure 7).

(72)   Figure 14 summarizes the results of applying my sensitivity tests to Dr. Singer's baseline model when using my amended data and correcting his standard errors. A red cell indicates that the overcharge estimate for that model is statistically significant at the 5 percent significance level. A light red cell indicates that the overcharge estimate for that model is statistically significant at only the 10 percent significance level. A white cell indicates that the overcharge estimate for that model is not statistically significant at standard significance levels. Gray cells indicate results that are identical to another cell

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[76]   Singer Rebuttal Report, ¶ 68, Table 4.

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due to the inclusion of fixed effects (e.g., models 2 and 3 and models 5 and 6 are identical when using year fixed effects).

Figure 14: Summary of the conduct estimates after correcting Dr. Singer's data, based on Dr. Singer's expected family contribution overcharge models with corrected standard errors

Dependent variable: Expected family contribution	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Hill amended data	-147	-161	429	139	273	422
Hill amended data + Year FE	398		954*	1,080***		1,035***
Hill amended data + COVID FE	621	321	-68	102	265	259
Hill amended data + drop '23–24 '24–25	141	-4	205	144	317	431

Source: Hill amended data.
Notes:
[1] Dr. Singer's models from Table 1 of his rebuttal report with corrected data and conceptual modifications.
[2] Expected family contribution is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] Red cells indicate estimates that are statistically significant and positive at the 5 percent significance level using two-way clustering. The light red cell indicates an estimate that is statistically significant and positive at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** p<0.01, ** p<0.05, * p<0.1.

(73) The results in row 1 of the figure depict the effect of replacing Dr. Singer's amended data with my amended data. This change results in Dr. Singer's methodology producing no statistically significant evidence of overcharges. Row 2 depicts the effect of controlling flexibly for the year rather than imposing a linear relationship between year and effective institutional price. It shows that using year fixed effects results in three of Dr. Singer's models finding no evidence of increased expected family contributions that are statistically significant at the 5 percent significance level.

(74) Row 3 depicts the effect of controlling flexibly for the COVID-19 pandemic rather than assuming that it only had an impact in 2020. It shows that none of Dr. Singer's models yields statistically significant evidence of overcharges after making this change. Finally, row 4 depicts the effect of dropping unreliable data from the 2023–2024 and 2024–2025 academic years. It shows that none of Dr. Singer's models yields statistically significant evidence of overcharges after making this change.

(75) Collectively, the results depicted in Figure 14 show that, when using my amended data and making small and reasonable changes to Dr. Singer's methodology, his models' results are inconsistent with the claim that the challenged conduct led to higher expected family contributions.

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B.3. Additional evidence that Dr. Singer's estimated overcharges change materially in response to my sensitivity tests

B.3.a Dr. Singer's new estimated overcharges change materially in response to my sensitivity tests when using his amended data

Figure 33: Summary of the conduct estimates after modifying Dr. Singer's overcharge models including merit-based aid, based on Dr. Singer's amended data with corrected standard errors

Dependent variable: Effective institutional price (Including merit-based institutional aid)	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Singer amended data	218	308	737**	805*	1,023***	981***
Singer amended data + Year FE	515		766*	259		429
Singer amended data + COVID FE	-275	-177	-297	180	353	52
Singer amended data + drop '23–24 '24–25	-189	-159	258	428	700*	659*

Source: Singer amended data.
Notes:
[1] Dr. Singer's models from his rebuttal report backup materials with conceptual modifications.
[2] Effective institutional price is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] Red cells indicate estimates that are statistically significant and positive at the 5 percent significance level using two-way clustering. Light red cells indicate estimates that are statistically significant and positive at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Figure 34: Summary of the conduct estimates after modifying Dr. Singer's institutional grant aid overcharge models, based on Dr. Singer's amended data with corrected standard errors

Dependent variable: Institutional grant aid	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Singer amended data	1,809	676	445	-65	-116	-49
Singer amended data + Year FE	-1,285***		-1,467***	-941**		-1,011**
Singer amended data + COVID FE	4,138***	1,193	-502	-816**	-919***	-534*
Singer amended data + drop '23–24 '24–25	3,136*	1,190	121	-141	-241	-91

Source: Singer amended data.
Notes:
[1] Dr. Singer's models from his rebuttal report backup materials with conceptual modifications.
[2] Institutional grant aid is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] Red cells indicate estimates that are statistically significant and negative (i.e., indicating that the challenged conduct decreased institutional grant aid) at the 5 percent significance level using two-way clustering. Light red cells indicate estimates that are statistically significant and negative at the 10 percent significance level using two-way clustering. The blue cell indicates an estimate that is statistically significant and positive (i.e., indicating that the challenged conduct increased institutional grant aid) at the 5 percent significance level using two-way clustering. The light blue cell indicates an estimate that is statistically significant and positive at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

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Figure 35: Summary of the conduct estimates after modifying Dr. Singer's institutional grant aid overcharge models including merit-based aid, based on Dr. Singer's amended data with corrected standard errors

Dependent variable: Institutional grant aid (Including merit-based institutional aid)	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Singer amended data	2,114	893	653	126	102	172
Singer amended data + Year FE	-1,006**		-1,283***	-616		-681*
Singer amended data + COVID FE	4,589***	1,419	-354	-648**	-731**	-329
Singer amended data + drop '23–24 '24–25	3,505*	1,408	317	51	-14	152

Source: Singer amended data.
Notes:
[1] Dr. Singer's models from his rebuttal report backup materials with conceptual modifications.
[2] Institutional grant aid is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] Red cells indicate estimates that are statistically significant and negative (i.e., indicating that the challenged conduct decreased institutional grant aid) at the 5 percent significance level using two-way clustering. Light red cells indicate estimates that are statistically significant and negative at the 10 percent significance level using two-way clustering. The blue cell indicates an estimate that is statistically significant and positive (i.e., indicating that the challenged conduct increased institutional grant aid) at the 5 percent significance level using two-way clustering. The light blue cell indicates an estimate that is statistically significant and positive at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** p<0.01, ** p<0.05, * p<0.1.

Figure 36: Summary of the conduct estimates after modifying Dr. Singer's log-linear overcharge models, based on Dr. Singer's amended data with corrected standard errors

Dependent variable: Log(Effective institutional price)	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Singer amended data	-0.01	-0.01	0.00	0.03**	0.03***	0.03***
Singer amended data + Year FE	0.02		0.02	0.02		0.03*
Singer amended data + COVID FE	-0.05***	-0.04**	-0.03*	0.01	0.01	0.00
Singer amended data + drop '23–24 '24–25	-0.04**	-0.03*	-0.01	0.02	0.02*	0.02*

Source: Singer amended data.
Notes:
[1] Dr. Singer's models from his rebuttal report backup materials with conceptual modifications.
[2] The log of effective institutional price is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] Red cells indicate estimates that are statistically significant and positive at the 5 percent significance level using two-way clustering. Light red cells indicate estimates that are statistically significant and positive at the 10 percent significance level using two-way clustering. Blue cells indicate estimates that are statistically significant and negative at the 5 percent significance level using two-way clustering. Light blue cells indicate estimates that are statistically significant and negative at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** p<0.01, ** p<0.05, * p<0.1.

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Figure 37: Summary of the conduct estimates after modifying Dr. Singer's log-linear overcharge models including merit-based aid, based on Dr. Singer's amended data with corrected standard errors

Dependent variable: Log(Effective institutional price) (Including merit-based institutional aid)	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Singer amended data	-0.02	-0.01	0.00	0.03**	0.03***	0.03**
Singer amended data + Year FE	0.01		0.02	0.02		0.02
Singer amended data + COVID FE	-0.06***	-0.04***	-0.03**	0.01	0.01	0.00
Singer amended data + drop '23–24 '24–25	-0.05**	-0.04**	-0.02	0.01	0.02	0.02

Source: Singer amended data.
Notes:
[1] Dr. Singer's models from his rebuttal report backup materials with conceptual modifications.
[2] The log of effective institutional price is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] Red cells indicate estimates that are statistically significant and positive at the 5 percent significance level using two-way clustering. Blue cells indicate estimates that are statistically significant and negative at the 5 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

B.3.b Dr. Singer's new estimated overcharges change materially in response to my sensitivity tests when using my amended data

Figure 38: Summary of the conduct estimates after modifying Dr. Singer's overcharge models including merit-based aid after correcting his data and standard errors

Dependent variable: Effective institutional price (Including merit-based institutional aid)	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Hill amended data	-579	-340	152	8	267	390
Hill amended data + Year FE	-987*		-490	-748		-611
Hill amended data + COVID FE	-1,030**	-808*	-958**	-638	-422	-544
Hill amended data + drop '23–24 '24–25	-1,041**	-860*	-443	-471	-181	-56

Source: Hill amended data.
Notes:
[1] Dr. Singer's models from his rebuttal report backup materials with corrected data and conceptual modifications.
[2] Effective institutional price is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] Blue cells indicate estimates that are statistically significant and negative at the 5 percent significance level using two-way clustering. Light blue cells indicate estimates that are statistically significant and negative at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

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Figure 39: Summary of the conduct estimates after modifying Dr. Singer's institutional grant aid overcharge models after correcting his data and standard errors

Dependent variable: Institutional grant aid	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Hill amended data	629	491	-390	3	-6	-169
Hill amended data + Year FE	100		-342	-195		-211
Hill amended data + COVID FE	3,555**	779	45	-693	-688	-106
Hill amended data + drop '23–24 '24–25	2,332	734	606	-23	19	424

Source: Hill amended data.
Notes:
[1] Dr. Singer's models from his rebuttal report backup materials with corrected data and conceptual modifications.
[2] Institutional grant aid is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] The blue cell indicates an estimate that is statistically significant and positive (i.e., indicating that the challenged conduct increased institutional grant aid) at the 5 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** p<0.01, ** p<0.05, * p<0.1.

Figure 40: Summary of the conduct estimates after modifying Dr. Singer's institutional grant aid overcharge models including merit-based aid after correcting his data and standard errors

Dependent variable: Institutional grant aid (Including merit-based institutional aid)	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Hill amended data	747*	646	-323	28	66	-16
Hill amended data + Year FE	182		-285	-28		-27
Hill amended data + COVID FE	3,829***	937	137	-694	-634	5
Hill amended data + drop '23–24 '24–25	2,525	881	752	-8	99	578

Source: Hill amended data.
Notes:
[1] Dr. Singer's models from his rebuttal report backup materials with corrected data and conceptual modifications.
[2] Institutional grant aid is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] The blue cell indicates an estimate that is statistically significant and positive (i.e., indicating that the challenged conduct increased institutional grant aid) at the 5 percent significance level using two-way clustering. The light blue cell indicates an estimate that is statistically significant and positive at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** p<0.01, ** p<0.05, * p<0.1.

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Figure 41: Summary of the conduct estimates after modifying Dr. Singer's log-linear overcharge models after correcting his data and standard errors

Dependent variable: Log(Effective institutional price)	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Hill amended data	-0.04**	-0.03	-0.02	0.00	0.01	0.01
Hill amended data + Year FE	-0.05**		-0.04*	-0.01		-0.01
Hill amended data + COVID FE	-0.08***	-0.06***	-0.06***	-0.02	-0.01	-0.01
Hill amended data + drop '23–24 '24–25	-0.07***	-0.06***	-0.05**	-0.01	0.00	0.00

Source: Hill amended data.
Notes:
[1] Dr. Singer's models from his rebuttal report backup materials with corrected data and conceptual modifications.
[2] The log of effective institutional price is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] Bblue cells indicate estimates that are statistically significant and negative at the 5 percent significance level using two-way clustering. The light blue cell indicates an estimate that is statistically significant and negative at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Figure 42: Summary of the conduct estimates after modifying Dr. Singer's log-linear overcharge models including merit-based aid after correcting his data and standard errors

Dependent variable: Log(Effective institutional price) (Including merit-based institutional aid)	Dr. Singer's model 1	Dr. Singer's model 2	Dr. Singer's model 3	Dr. Singer's model 4	Dr. Singer's model 5	Dr. Singer's model 6
Hill amended data	-0.05**	-0.04*	-0.03*	0.00	0.01	0.01
Hill amended data + Year FE	-0.06***		-0.04*	-0.02		-0.01
Hill amended data + COVID FE	-0.09***	-0.07***	-0.07***	-0.02	-0.02	-0.02
Hill amended data + drop '23–24 '24–25	-0.08***	-0.06***	-0.06***	-0.02	-0.01	-0.01

Source: Hill amended data.
Notes:
[1] Dr. Singer's models from his rebuttal report backup materials with corrected data and conceptual modifications.
[2] The log of effective institutional price is regressed on school fixed effects and various control variables in models 1–3. It is regressed on student-school fixed effects and various control variables in models 4–6. Models 2 and 3 and models 5 and 6 are identical with year fixed effects as macro control variables are school invariant and explain no additional variation (cells in gray).
[3] Blue cells indicate estimates that are statistically significant and negative at the 5 percent significance level using two-way clustering. Light blue cells indicate estimates that are statistically significant and negative at the 10 percent significance level using two-way clustering. White cells indicate estimates that are not statistically significant at the 10 percent significance level using two-way clustering. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.